UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, D.C. 20555

October 30, 2002

NRC INFORMATION NOTICE 2002-30: CONTROL AND SURVEILLANCE OF PORTABLE GAUGES DURING FIELD OPERATIONS

Addressees:

All U.S. Nuclear Regulatory Commission (NRC) licensees authorized to possess, use, transport, and store portable gauges.

Purpose:

NRC is issuing this Information Notice (IN) to remind licensees of their responsibility to maintain control and constant surveillance of portable gauges during field operations. It is expected that recipients will review the information for applicability to their licensed activities and consider actions, as appropriate, to preclude occurrence of similar problems. However, suggestions contained in this IN are not NRC requirements and, therefore, no specific action or written response is required.

Description of Circumstances:

Failure of licensees to maintain adequate control over licensed portable gauges has resulted in a recent increase in the frequency of devices being damaged during field operations. Since the beginning of January 2002, licensees have reported 12 incidents involving the damage of moisture-density gauges by construction-related equipment. NRC inspections have confirmed weaknesses in licensee controls, surveillance, oversight, and training of personnel. Several cases were subject to escalated enforcement action and consideration of civil penalties.

Discussion:

The regulations in 10 CFR 20.1802 require that licensees, ”control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and not in storage.” NRC considers licensee failure to secure or constantly maintain surveillance of licensed material a significant safety issue. Implementation of adequate oversight practices is intended to prevent: (1) damage to the licensed device; (2) inadvertent exposure of workers and members of the public to radioactive material; and (3) the loss or theft of licensed material. Because of NRC concern over licensee failure to maintain control and constant surveillance of licensed material, such violations have been categorized in accordance with the “General Statement of Policy and Procedure for Enforcement Actions“ (Enforcement Policy), NUREG-1600, at Severity Level III. Issuance of escalated enforcement may also subject licensees to a civil penalty and increased inspection effort.

Some portable gauge damage during field operations (“run-over” or “roll-over” incidents) was caused, in part, by momentary lapses in control, and/or by inattention. Incidents have resulted from personnel leaving portable devices unattended, to retrieve items from their vehicle or to inspect the work site in preparation for testing. One specific incident involved gauge use by an untrained/unauthorized user, as well as inadequate supervision.

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Although many of the portable gauges sustained severe mechanical damage, most radioactive sources remained intact and no contamination leakage was identified. Nevertheless, licensees should not assume the robust design characteristics of portable gauges will ensure that damage event sequences are unlikely to lead to consequences. The root cause, namely, temporary lapses in control, can lead to inadvertent exposure of workers and the public to radioactive material. There is substantial potential for damage, loss, or theft of these devices, when constant surveillance is not maintained. Licensees are reminded of their responsibility to prevent theft or loss of portable gauges from unattended vehicles, temporary storage, and during transport. NRC has issued a number of INs to address the control of portable gauges. The potential for malevolent risk also exists once these devices enter the public domain.

Damaged portable gauges are normally returned to the manufacturer or an NRC or Agreement State licensee authorized for service, repair, or disposal. Licensees should ensure proper disposition of portable gauges when they are damaged, at the completion of the service life, or when a licensee terminates licensed activities.

Although no specific action is required, it is suggested that licensees consider reviewing the contents of this IN with each individual who uses portable gauges, to reinforce the importance of maintaining constant visual surveillance, as a way to comply with regulatory requirements in 10 CFR 20.1802, and to periodically evaluate or audit controls during field operations. Licensees should also consider the operating and emergency procedures in NUREG-1556, Vol. 1, “Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauges,” for ways to prevent damage to portable gauges and to mitigate the consequences.

Related Generic Communications:

- IN 2001-11, “Thefts of Portable Gauges”
- IN 98-01, “Thefts of Portable Gauges”
- IN 93-18, “Portable Moisture-Density Gauge User Responsibilities During Field Operations”
- IN 88-02, Lost or Stolen Gauges”
- IN 87-55, “Portable Moisture/Density: Recent Incidents and Common Violations of Requirements for Use, Transportation, and Storage”
- IN 86-67, “Portable Moisture Density Gauges: Recent Incidents and Common Violations of Requirements for Use, Transportation, and Storage”
- IN 84-26, “Recent Serious Violations of NRC Requirements by Moisture Density Gauges”

This IN requires no specific action nor written response. If you have any questions about the information in this notice, please contact the technical contact listed below, or the appropriate regional office.

/RA/SMFfor

Donald A. Cool, Director
Division of Industrial and
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Office of Nuclear Material Safety
and Safeguards

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Attachments:
1. List of Recently Issued NMSS Information Notices
2. List of Recently Issued NRC Information Notices